WHAT IS CLAIMED IS

1. A focus control apparatus for detecting in-focus position of a focusing optical system by performing scanning for driving the focusing optical system in accordance with a prescribed range of a subject distance, comprising:

zone dividing means for dividing the subject distance into a plurality of distance measurement zones;

zone selection means for selecting a distance measurement zone to be scanned;

in-focus state acquisition means for acquiring distance-measurement information by scanning the selected distance measurement zone;

zone-update determination means for determining, through use of the in-focus state, whether or not to update a distance measurement zone to be scanned; and

in-focus position decision means for deciding an in-focus position of the focusing optical system based upon result of the determination as to whether to update the distance measurement zone.

2. The apparatus according to claim 1, wherein said zone-update determination means determines whether a distance measurement zone is to be updated, using each in-focus state of the distance measurement zone scanned.

3. The apparatus according to claim 1, wherein said zone-update determination means changes a requirement for determining whether or not to update a distance measurement zone in dependence upon update history of the distance measurement zone scanned.

4. The apparatus according to claim 1, wherein application is to a case where a screen has a plurality of distance measurement positions, said zone-update determination means determining whether a distance measurement zone is to be updated, using at least some of the plurality of distance measurement positions.

5. The apparatus according to claim 1, wherein said zone-update determination means includes:

in-focus discrimination means for discriminating whether or not focus has been achieved using the in-focus state; and

zone updating means for successively updating the distance measurement zone to be scanned;

whether or not to execute updating of the distance measurement zone being determined in dependence upon result of in-focus discrimination.

6. The apparatus according to claim 5, wherein said update determination means halts updating of the distance measurement zone if an in-focus state has been discriminated by said in-focus discrimination means.

7. The apparatus according to claim 5, wherein said in-focus discrimination means discriminates the in-focus state using each in-focus state of the distance measurement zone scanned.

8. The apparatus according to claim 5, wherein said in-focus discrimination means changes a requirement for judging the in-focus state in dependence upon update history of the distance measurement zone scanned.

9. The apparatus according to claim 5, wherein application is to a case where a screen has a plurality of distance measurement positions, said zone update determination means determining whether a distance measurement zone is to be updated, using at least some of the plurality of distance measurement positions.

10. The apparatus according to claim 1, wherein order in which distance measurement zones are updated is changed in accordance with mode of photography.

11. The apparatus according to claim 1, wherein a requirement for determining whether or not to update a distance measurement zone is changed in accordance mode of photography.

12. The apparatus according to claim 1, wherein a method of dividing subject distance into the distance measurement zones is changed in accordance with conditions of photography.

13. The apparatus according to claim 12, wherein number of distance measurement zones into which the subject distance is divided is changed in accordance with focal length at time of photography.

14. The apparatus according to claim 13, wherein the greater the focal length at the time of photography, the larger the number of distance measurement zones into which the subject distance is divided is made.

15. The apparatus according to claim 12, wherein number of distance measurement zones into which the subject distance is divided is changed in accordance with f-stop value at time of photography.

16. The apparatus according to claim 15, wherein the more an aperture is stopped down, the smaller the number of distance measurement zones is made.

17. The apparatus according to claim 1, wherein order in which distance measurement zones are updated is changed in accordance with conditions of photography.

18. The apparatus according to claim 17, wherein order in which the distance measurement zones are updated is changed in accordance with luminance level at time of photography.

19. The apparatus according to claim 17, wherein order in which the distance measurement zones are updated is set giving priority to long distances in a scenery photography mode.

20. The apparatus according to claim 17, wherein order in which the distance measurement zones are updated is set giving priority to short distances in a portrait photography mode.

21. The apparatus according to claim 17, wherein order in which the distance measurement zones are updated is set giving priority to short distances in a flash photography mode.

22. The apparatus according to claim 1, wherein the in-focus state is an autofocus evaluation value obtained by extracting a prescribed signal component from a signal that has been acquired by an image sensing device.

23. An image sensor having an in-focus control apparatus set forth in claim 1.

24. A program for controlling an in-focus control apparatus so as to detect in-focus position of a focusing optical system by performing scanning for driving the focusing optical system in accordance with a prescribed range of a subject distance, said program causing a computer to function as:

means for dividing the subject distance into a plurality of distance measurement zones;

means for selecting a distance measurement zone to be scanned;

means for acquiring the in-focus state of the focusing optical system by scanning the selected distance measurement zone;

means for determining, through use of the in-focus state, whether or not to update a distance measurement zone to be scanned; and

means for deciding an in-focus position of the focusing optical system based upon result of the determination as to whether to update the distance measurement zone.

25. A computer-readable storage medium storing a program for controlling an in-focus control apparatus so as to detect in-focus position of a focusing optical system by performing scanning for driving the focusing optical system in accordance with a prescribed range of a subject distance, said storage medium storing a program for a computer to function as:

means for dividing the subject distance into a plurality of distance measurement zones;

means for selecting a distance measurement zone to be scanned;

means for acquiring the in-focus state of the focusing optical system by scanning the selected distance measurement zone;

means for determining, through use of the in-focus state, whether or not to update a distance

measurement zone to be scanned; and

means for deciding an in-focus position of the focusing optical system based upon result of the determination as to whether to update the distance measurement zone.